

PATENT CLAIMS

1. A connecting unit, which includes a journal provided with at least two stops with a joint area arranged between the stops and a counter  
5 element cooperating with one of the stops of the journal,  
wherein the counter element includes a recess for the joint area of the journal and a wedge-formed outer contour, which is formed by outer surfaces of the counter element oriented perpendicular to the longitudinal axis of the journal when the journal and counter element  
10 are joined together in an appropriate manner.
2. A connecting unit in accordance with claim 1, characterized in that the recess of the counter element includes a wedge shaped taper in the direction of the decreasing thickness of the wedge shaped outer  
15 contour and the joint area of the journal is wedge shape formed compatible to the recess of the contour element.
3. A connecting unit in accordance with one of claims 1 through 2, characterized in that the joint area of the journal is formed by the  
20 grooves located in the journal.
4. A connecting unit in accordance with one of claims 1 through 3, characterized in that the journal includes a head and a shaft.
- 25 5. A connecting unit in accordance with claim 4, characterized in that one of the radial oriented side surfaces of the grooves forms one stop and the head of the journal forms the other stop.
6. A connecting unit in accordance with one of claims 3 through 5,  
30 characterized in that the base surfaces of the grooves run parallel to the longitudinal axis of the journal and run wedge like relative to one another.

7. A connecting unit in accordance with one of claims 3 through 6,  
characterized in that at least two grooves are located in the journal.
8. A connecting unit in accordance with one of claims 3 through 7,  
5 characterized in that the grooves lie opposite to one another.
9. A connecting unit in accordance with one of claims 3 through 8,  
characterized in that the side surfaces of the grooves running in the  
radial direction are at a right angle with the longitudinal axis of the  
10 journal in the tangential direction.
10. A connecting unit in accordance with one of claims 3 through 8,  
characterized in that the side surfaces of the grooves running in the  
radial direction are sloped relative to a plane at the wedge angle of the  
15 wedge shaped outer contour of the counter element, which is  
perpendicular to the longitudinal axis of the journal.
11. A connecting unit in accordance with one of claims 1 through 10,  
characterized in that the recess of the counter element is formed  
20 through a wedge shaped notch.
12. A connecting unit in accordance with one of claims 1 through 10,  
characterized in that the recess of the counter element is formed by a  
wedge like tapered through hole in the counter element that extends  
25 perpendicular to the insertion direction.
13. A connecting unit in accordance with claim 12, characterized in that the  
recess is formed by two circular through holes that are spaced from one  
another and a wedge shaped area that is connected with one of the  
30 through openings.
14. A connecting unit in accordance with one of claims 1 through 13,  
characterized in that the connecting unit includes a balance element.

15. A connecting unit in accordance with claim 14, characterized in that the balance element is locatable on the journal next to the counter element.
16. A connecting unit in accordance with one of claims 14 or 15,  
5 characterized in that the balance element includes a wedge shaped outer contour.
17. A connecting unit in accordance with one of claims 14 through 16,  
10 characterized in that the wedge angle of the balance element corresponds to the wedge angle of the counter element.
18. A connecting unit in accordance with one of claims 14 through 17,  
15 characterized in that the wedge slope of the balance element is opposite to the wedge slope of the contour element.
19. A connecting unit in accordance with one of claims 1 through 18,  
characterized in that the contour element includes two wedge shaped elements with opposing slopes.
20. A connecting unit in accordance with claim 19, characterized in that the  
20 wedge shaped elements of the counter element are linearly displaceable relative to one another.
21. A connecting unit in accordance with claim 19, characterized in that the  
25 wedge-shaped elements of the counter element are skewable relative to one another.
22. A connecting unit in accordance with one of the previous claims,  
30 characterized in that the connecting unit includes balance elements for the customization of the clamping length that lie between the stops of the journal to different dimensions of the to be connected components.

23. A connecting unit in accordance with one of the previous claims, characterized in that the connecting unit includes a safety element, for example a rubber plug, for securing the contour element on the journal.
- 5 24. A connecting unit in accordance with one of the previous claims, characterized in that the journal includes two joint areas separated from one another.
25. A connecting unit in accordance with claim 24, characterized in that at  
10 least one counter element is locatable on each of the joint areas.
26. A connecting unit in accordance with one or more of the previous claims, characterized in that the journal, counter element, spacer element and/or balance element are made from a substantially metallic  
15 material.
27. A connecting unit in accordance with one or more of the previous claims, characterized in that the journal, counter element, spacer element and/or balance element are made from a substantially plastic  
20 material.